

WRC Energy Committee
Meeting notes: March 24, 2008
Convened: 6:30 PM, River Garden

Members present: John Whitman, Denis Pinkernel, Tom Buchanan, Heath Boyer, Bruce Gardner, Eric Stevens, Mike Mandracchia, Peter Bradford

Staff present: Jim Matteau

Guests present: Uldis Vanags, Vermont Nuclear Engineer. In the audience and occasionally responding to Committee questions were Dave McElwee and Mike Metell from Entergy.

1. The meeting convened at 6:30 P.M. with introductions.
2. Discussion of the proposed operating extension generally followed the meeting agenda, with most discussion being between Committee members and Uldis Vanags. Issues and points of discussion are noted below.
3. Age of nuclear plants
 - a. Oyster Creek is oldest operating plant. VY and Pilgrim are younger but in that same generation, as was Maine Yankee.
 - b. 40 plants have received NRC license renewal; the NRC anticipates about 40 more.
4. Final Safety Evaluation Report (FSER)
 - a. Discussion of reactor core, embrittlement etc.
 - i. Noted that reactors have "coupons" installed at construction which are to be pulled periodically and tested as a proxy for testing the reactor itself
 1. Question as to whether this was done at VY and if so what were the results. No one present knew the answer to either question. Would have to get back to us
5. Discussion of Maine Yankee, any lessons learned that are applicable to VY.
 - a. Noted that decommission cost was \$505 million and long-term ISFSI cost was \$60 million
6. Cable separation issue, status at VY questioned
 - a. Noted that this issue was brought to the fore by Browns Ferry NPS fire in 1974
 - b. Exact status not known; Uldis will be looking at inspection issues with NRC staff
7. Decommissioning Cost Analysis (by TLG consultant)
 - a. Uldis considers TLG report accurate
 - b. Discussion of "greenfield":
 - i. Excavate 3 ft and then fill cover & abandon. May not be what public or state officials thought was "the deal" initially
 - ii. Uldis: NRC requirement is to remediate for "unrestricted use". Fed limit is 25 millirem/year; Maine is 10 mr/yr; not sure of VT
 - c. Committee asked about soil & water tests
 - i. Entergy staff responded that there are 2 sampling wells and soil samples are taken for tritium and other radioactivity tests. Also test milk and silage at a nearby farm.
 - d. Timing of decommissioning

- i. Uldis: best to do that immediately because individuals' experience and the "institutional memory" are available
- 8. "Lessons learned"
 - a. Committee asked again about actual examination of reactor components, coupons, etc.; "forensic" examination of shutdown reactor. Was this done at Maine Yankee and if so what was learned?
 - i. Uldis believes it was mostly dismantled & disposed. Would have to check with Electric Energy Research Institute and get back to us.
- 9. SNF management
 - a. Discussion of spent fuel pool density. Committee noted that PSB in uprate case required analysis of pool status and management. WRC had argued for full-core offload capability; CAN also argued for reduced pool density.
 - i. Uldis noted that pool is considered manageable as is. Additional SNF produces more heat, but also "borated material" is increased to dampen activity.
 - b. Committee asked what is ideal pool density. Uldis noted he would get back to us on that question.
 - c. General discussion of maintaining full core offload capability at all times. Everyone agrees that it is a good idea. Only WRC states that it should be required.
- 10. Return to material sampling and testing
 - a. Committee asked if coupon tests would assess flow stresses. Uldis said no, they would only test for neutron embrittlement over time.
 - b. General discussion of need for information about actual design life and actual material conditions, based on actual tests. General frustration at apparent lack of hard data.
 - i. Uldis noted that most material problems stem from metal fatigue, corrosion, erosion, etc. Most are not due to radioactivity.
 - ii. Noted that condition still appears unknown to those present, both state and Entergy representatives.
 - c. Committee asked if the industry or EPRI has any kind of program to "autopsy" components from shut down reactors. None known.
- 11. Economic conditions
 - a. Committee asked about economic conditions when Maine Yankee closed
 - i. Uldis: Town of Wiscasset tax revenue dropped from \$12.5 million/yr to about \$1 million
 - ii. Noted that employment impacts were dampened by presence of Bath Iron Works (shipyard)
 - iii. Power was replaced in large part by a new gas line that was already in process and that offered very low prices at the time.
- 12. Public comment
 - a. Hattie Nestel:
 - i. Cooling towers had been inspected, one collapsed
 - ii. Yucca mountain isn't going to happen, we need to deal with the nuclear waste here

- iii. The projected decommissioning costs and fund status are veru confusing to the public
- b. Rich Garrant;
 - i. Noted that industry experience at the time VY was built was very short; presents some cause for concern and need for thorough reviews

The meeting adjourned at 8:50.

The next special meeting date will be March 31, 2008 at 7:00 p.m. regarding the NuCo proposal.

The next regular meeting will be April 3 at 6:30 PM.